

Notice of Allowability

Application No.

09/715,348

Examiner

Miranda Le

Applicant(s)

KOKKONEN ET AL.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 09/14/05.
2. ☒ The allowed claim(s) is/are 1-4, 6-11, 13-18 and 20-48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Daniel S. Song on September 23, 2005.

3. The application has been amended as follows:

In the Specification:

On page 16, line 27, **delete** ~~<http://search.dmoz.org/cgi-bin/search?search=audi>~~, and **insert** `<http://search.dmoz.org/cgi-bin/search?search=audi>`.

In the claims:

- *Claim 1 has been amended as:*

A method of generating directed content, the method comprising:

receiving a set of lists of search terms from a plurality of remote web services that are adapted to receive submissions of at least one search term and perform a search for the search term submitted, each list of search terms in said set of lists being associated with, and maintained by, the respective web service, each list of search terms in said set of lists including search terms submitted to said respective web service that were used by said respective web service to perform searches;

distilling said set of lists of search terms into a frequency database, the database having search frequency information indicating, for respective search terms, a frequency with which

each of the search terms were submitted to one or more of the plurality of remote web services for searching by the respective remote web service;

obtaining a query;

searching the frequency database for matches between said query and search terms in the database, the matches indicating that the obtained query was submitted as a search term to one or more of the plurality of remote web services;

selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected remote web service to which said query was submitted as a search term; and

generating directed content based on one or more of the respective selected web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

- *Claim 2 has been amended as:*

The method of claim 1, wherein said directed content is a hyperlink to ~~a selected~~ the linked remote web service, and the linked remote web service is a selected web service to which said query was submitted as a search term with high associated frequency.

- *Claim 7 has been amended as:*

A method of generating directed content, the method comprising:

receiving a plurality of lists of search terms from a plurality of remote web services that are adapted to receive submissions of at least one search term and perform a search for the search term submitted, each list of search terms in said plurality of lists being associated with, and maintained by, the respective web service, each list of search terms in said plurality of lists including the search terms submitted to said respective web service that were used by said respective web service to perform searches;

distilling said plurality of lists of search terms into a frequency sorted list, the frequency sorted list including a plurality of entries, each entry having a search term and a number of times

Art Unit: 2167

said search term was submitted to a respective web service for searching by the respective remote web service;

obtaining a query;

searching the frequency sorted list for matches between said query and a search term in the frequency sorted list, the matches indicating that the query was submitted as a search term to the respective remote web service;

selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected web service to which said query was submitted as a search term; and

generating directed content based on one or more of the respective selected remote web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

• *Claim 8 has been amended as:*

A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

a frequency database having search frequency information;

a program module for generating directed content, said program module comprising:

instructions for receiving a set of lists of search terms from a plurality of remote web services that are adapted to receive submissions of at least one search term and perform a search for the search term submitted, each list of search terms in said set of lists associated with, and maintained by, the respective web service, each list of search terms in said set of lists including search terms submitted to said respective web service that were used by said respective web service to perform searches;

instructions for distilling said set of lists into said frequency database, the database having search frequency information indicating, for respective search terms, a frequency with which each of the search terms were submitted to one or more of the plurality of remote web services for searching by the respective remote web service;

instructions for obtaining a query;

instructions for searching the frequency database for matches between said query and search terms in the database, the matches indicating that the query was submitted as a search term to one or more of the plurality of remote web services;

instructions for selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected remote web service to which said query was submitted as a search term; and

instructions for generating directed content based on one or more of the respective selected remote web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

- *Claim 9 has been amended as:*

The computer program product of claim 8, wherein said directed content is a hyperlink to ~~a selected~~ the linked remote web service, and the remote web service is a selected web service to which said query was submitted as a search term with high associated frequency.

- *Claim 14 has been amended as:*

A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

a frequency sorted list of search terms having search frequency information;

a program module for generating directed content, said program module comprising:

instructions for receiving a plurality of lists of search terms from a plurality of remote web services that are adapted to receive submissions of at least one search term and perform a search for the search term submitted, each list of search terms in said plurality of lists being associated with, and maintained by, the respective web service, each list of search terms in said

Art Unit: 2167

plurality of lists including search terms submitted to said respective web service that were used by said respective web service to perform searches;

instructions for distilling said plurality of lists into said frequency sorted list, the frequency sorted list including a plurality of entries, each entry having a search term and a number of times said search term was submitted to a respective web service for searching by the respective web service;

instructions for obtaining a query;

instructions for searching the frequency sorted list for matches between said query and search terms in the frequency sorted list, the matches indicating that the query was submitted as a search term to the respective web service;

instructions for selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected remote web service to which said query was submitted as a search term; and

instructions for generating directed content based on one or more of the respective selected remote web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

• *Claim 15 has been amended as:*

A computer system for generating directed content, the computer system comprising:

a central processing unit;

a memory, coupled to the central processing unit, the memory having:

a frequency database including search term frequency information;

a program module for generating said directed content, said program module comprising:

instructions for receiving a set of lists of search terms from plurality of remote web services that are adapted to receive submissions of at least one search term and perform a search by a respective web service to which the search term is submitted, each list of

search terms in said set of lists being associated with, and maintained by, the respective web service, each list of search terms in said set of lists including search terms submitted to said respective web service that were used by the respective remote web service to perform searches;

instructions for distilling said set of lists into said frequency database, the frequency database having search frequency information indicating, for respective search terms, a frequency with which each of the search terms were submitted to one or more of the plurality of remote web services for searching by the respective remote web services;

instructions for obtaining a query;

instructions for searching the frequency database for matches between said query and search terms in the database, the matches indicating that the query was submitted as a search term to the respective web service;

instructions for selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected remote web service to which said query was submitted as a search term; and

instructions for generating directed content based on one or more the respective selected remote web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

- ***Claim 16 has been amended as:***

The computer system of claim 15, wherein said directed content is a hyperlink to a selected the linked remote web service, and the linked remote web service is a selected web service to which said query was submitted as a search term with high associated frequency.

- ***Claim 21 has been amended as:***

A computer system for generating directed content, the computer system comprising:
a central processing unit;
a memory, coupled to the central processing unit, the memory having:

Art Unit: 2167

a frequency sorted list of search terms including search frequency information;

a program module for generating said directed content, said program module comprising:

instructions for receiving a plurality of lists of search terms from a plurality of remote web services that are adapted to receive submission of at least one search term and performs a search, each list of search terms in said plurality of lists being associated with, and maintained by, a respective web service in the plurality of remote web services and each list of search terms in said plurality of lists including the search term submitted to said respective web service that was used by said respective web service to perform a search;

instructions for distilling said plurality of lists of search terms into said frequency sorted list, the frequency sorted list including a plurality of entries, each entry having a search term and a number of times said search term was submitted to, and searched by, a respective web service;

instructions for obtaining a query;

instructions for searching the frequency sorted list for matches between said query and a search term in the frequency sorted list, the matches indicating that the query was submitted as a search term to the respective web service;

instructions for selecting the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest rankings, each selected match indicating a respective selected remote web service of the web services to which said query was submitted as a search term; and

instructions for generating directed content based on one or more of the respective selected remote web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest rankings for the obtained query;

wherein said directed content is linked to a remote web service.

Reason for Allowance

3. Claims 1-4, 6-11, 13-18, 20-48 are allowed, now renumbered as 1-45.
4. The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a content-based search engine that distills the received set of lists of search terms into a frequency database that identifies those remote web services to which the search query was submitted most frequently. These remote web services are selected, and directed content is generated by the present invention based on the remote web services having the highest associated frequencies for the obtained query. Thus, the present invention processes the set of lists of search terms to derive a frequency database, which can then be used for the selection of the remote web services that are likely to have information associated with the query.

Prior art of record fails to teach a combination of elements including "selecting, the matches between said query and search terms in which search terms have at least one of highest associated frequencies and highest ranking each selected match indicating a respective selected remote web service to which said query was submitted as a search term; and generating directed content based on one or more of the respective selected web services so that the directed content is generated based on the remote web services having at least one of the highest associated frequencies and the highest ranking for the obtained query.

The closest prior art, Bailey et al. (U.S. Patent No. 6,785,671), shows a substantially similar search engine for assisting, users in locating web pages that allow user specified products to be purchased. However, Bailey et al. fail to anticipate or render the above-cited limitations obvious.

Art Unit: 2167

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (571) 272-4107. The fax number to this Art Unit is (571) 273-8300. The TC 2100's Customer Service number is (703) 306-5631.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Miranda Le
September 29, 2005

